A NEW SPECIES OF THE GENUS MALEZONOTUS FROM CALIFORNIA

(Hemiptera-Heteroptera: Lygaeidae)

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In 1958, I published a revision of the genus *Malezonotus* (Rhyparochrominae, Gonianotini) based on most of the important collections of Lygaeidae in the country. It was consequently a surprise to receive from Mr. Charles W. O'Brien four adult specimens of an eighth species of the genus (Fig. 3). Mr. O'Brien later returned to the collection locality and collected a total of 128 adult specimens and several nymphs. The bugs were found in and under a rotted fallen log in the company of an ant, *Formica (Proformica) limata* Wheeler (keyed in Creighton, 1950), one of a group that feeds on small arthropods and honeydew. The *Malezonotus* is a good mimic of the ant: Mr. O'Brien characterized its movements as exceedingly rapid, even for a lygaeid. Since the bug is a dry seed feeder, there seems to be no other intimate relation between the bug and the ant.

Malezonotus obrieni Ashlock, new species

Head punctate, with appressed golden pile; length, 0.80 mm; width, 1.02 mm; interocular space, 0.60 mm; antennal segment II slightly longer than IV; lengths: I, 0.32 mm; II, 0.90 mm; III, 0.71 mm; IV, 0.82 mm. *Pronotum* lightly punctate to rugose on posterior lobe, covered with appressed golden pile, sides nearly parallel to slightly constricted posteriorly; median length, 0.82 mm; greatest length, 0.95 mm; width, 1.08 mm. *Scutellum* obscurely punctate with appressed golden pile, impunctate and glabrous on midline; length, 0.75 mm; width, 0.86 mm. *Hemelytra* with small subappressed hairs in each puncture, in brachypterous form (only form known) claval suture absent, apical margin of corium straight, membrane more than half as long as apex of corium, attaining segment V. *Abdomen* with appressed golden pile ventrally and on tergites IV through VII (IV through VIII in female). *Fore femur* moderately incrassate; length, 1.14 mm; width, 0.30 mm; armed beneath with four spines, the most distal smallest, the next basal largest, no spines in basal quarter. Paramere as in figure 1; spermatheca as in figure 2.

Proximal two antennal segments, legs, labium, explanate lateral margins, and posetrior margins of prothorax dark castaneous. Acetabula yellow. Hemelytra white anteriorly to level of apex of scutellum, black beyond scutellum, claval commissure area testaceous; membrane white on basal half, black apically. Remaining parts black.

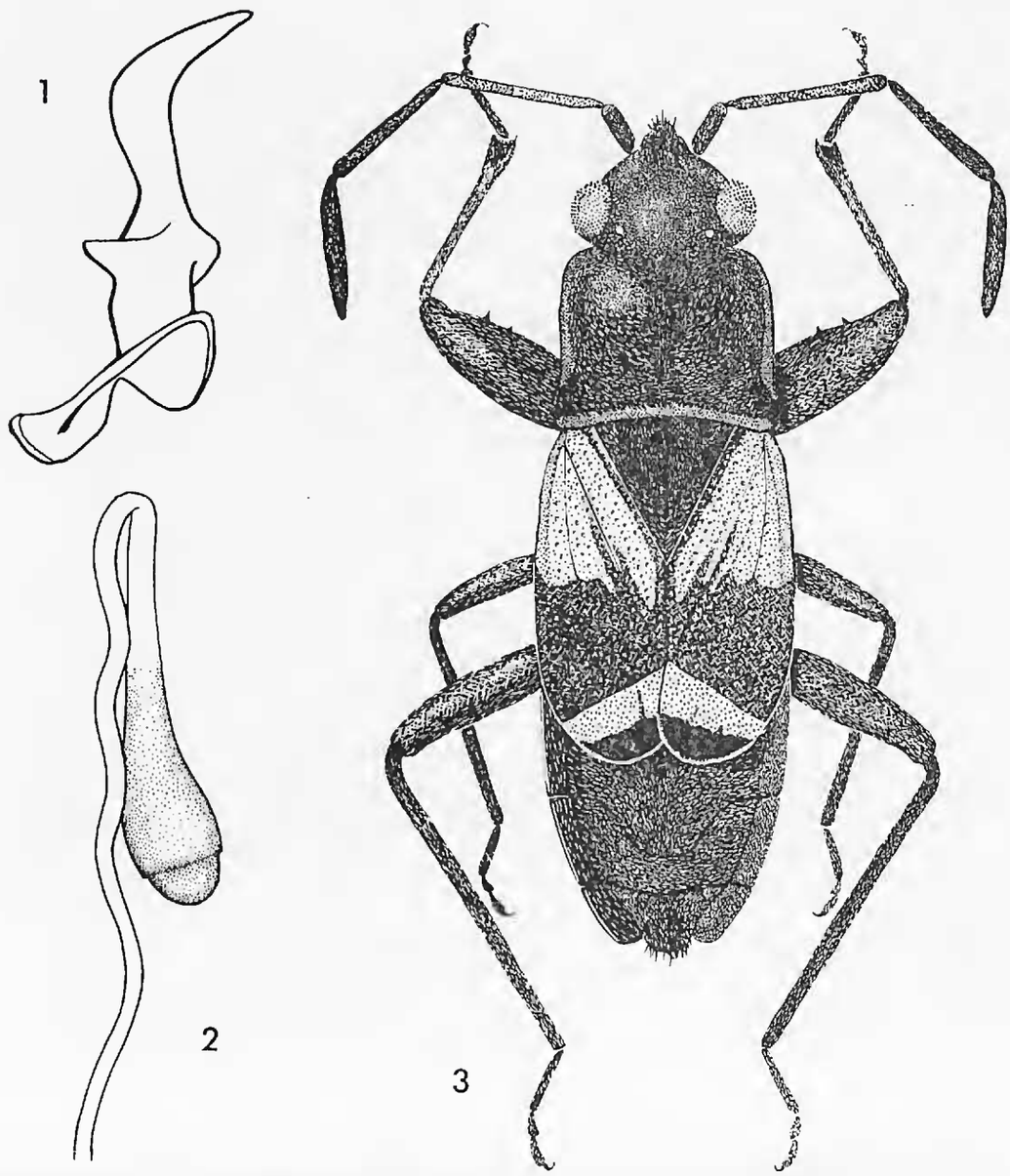
Size: male, length, 4.4 mm (4.1-4.5 mm), width, 1.3 mm; female, length, 4.8 mm (4.6-5.3 mm), width, 1.5 mm.

Holotype: brachypterous male, 5 MILES EAST OF SMITH MEADOW,

NINE MILE CANYON, 7,850 FEET, TULARE COUNTY, CALIFORNIA, VIII-17-1962, C. W. O'Brien, collector. Deposited in the California Academy of Sciences.

Paratypes: same data as holotype, 13 ♂♂, 9 ♀♀, 9 nymphs; same data but VII-22-1961, 3 ♂♂, 1 ♀, 1 nymph; VIII-5-1961, 23 ♂♂, 18 ♀♀; VIII-6-1961, 3 ♂♂, 5 ♀♀; VIII-19-1961, 32 ♂♂, 20 ♀♀, 1 (abdomen missing).

Malezonotus obrieni is a member of the *M. angustatus* group of the genus, as can be seen by the dorsal rather than lateral de-



EXPLANATION OF FIGURES

Fig. 1. Paramere, right, dorsal view. Fig. 2. Spermatheca.
Fig. 3. *Malezonotus obrieni*, dorsal view.

pression on the distal process of the shank of the paramere, by the vestiture of the abdominal dorsum, and by the prothorax, which is longer than the scutellum. In some ways, this species approaches the *M. rufipes* group of the genus: the blade of the paramere is narrow and the fore femur is similarly less incrassate. Moreover, the color pattern of the hemelytra is anteriorly pale and posteriorly dark. This species is most like *M. angustatus* in general appearance, but lacks the ferrugineous coloration on the hemelytra characteristic of that species. Like *M. barberi*, the brachypterous *M. obrieni* lacks a claval suture. The following key may be substiutted for the first two couplets of the previous key to the genus (Ashlock, 1958).

1. Pronotum one-fifth longer than scutellum 2
   Pronotum equal to or shorter than scutellum 3
2. Corium chiefly ferrugineous, occasionally infuscated; explanate lateral margins of pronotum concolorous with disk; hind tibia black, contrasting with castaneous hind femur; brachypterous form with claval suture present . . *M. angustatus* (Van Duzee)
   Corium black with pale markings; explanate lateral margins of pronotum paler than disk; hind tibia not black, concolorous with hind femur; brachypterous form with claval suture absent 2a
2a. Corium pale only along lateral margins and sometimes on claval suture; fore femur with a spine in basal quarter; hemelytra of brachypterous form about as long as exposed part of abdomen . . . . . *M. barberi* Ashlock
   Corium anteriorly pale, posteriorly black; fore femur without a spine in basal quarter; hemelytra of brachypterous form nearly twice as long as exposed part of abdomen . *M. obrieni* Ashlock

It gives me great pleasure to dedicate this attractive new species to Mr. Charles W. O'Brien, of the University of California, not only in recognition of the fact that he discovered and collected all of the known specimens of the species, but also as public acknowledgment of the many specimens of rare Lygaeidae that have been the result of his careful collecting. I would also like to thank Mr. Dan Janzen for help with the identification of the ant.

Literature Cited

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